SYSTEM AND METHOD FOR PROVIDING

DISCRIMINATED CONTENT TO NETWORK USERS

FIELD OF THE INVENTION

The present invention relates to a method for providing customers with transparent

5   access to information from various partnered service providers while maintaining an

environment of a single service provider.

BACKGROUND OF THE INVENTION

Various service providers often form business alliances or partnerships in which one

service provider will "brand" its services to match the appearance or message of a partner's

10   service. An example of such a relationship is branded credit cards, which are issued by one

service provider, but are branded to present the name or logo of another service provider. In

such a relationship, the two service providers typically operate within related, but non-

overlapping market sectors. The partnership provides mutual benefits to both service

providers, because whenever a customer uses the branded services, both partners are involved

15   in the transaction, and the customer can be said to be using both services in unison. In

addition, branded services bolster customer loyalty to both service providers.

Service providers are increasingly turning to the Internet, or World Wide Web

("Web"), as an additional outlet for providing their services. In the Internet context, a

customer of the service provider accesses the service provider's services using a networked

20   computer. The customer typically must "log in" to a service provider's system by submitting

login data (usually a user name and password) to verify the customer's identity. If the user

name and password are approved, then the customer may access the service provider's system

resources during the ensuing login session. The login session ends after the customer stops

using the resources for a predetermined period of time, or when the customer triggers a "log off."

A customer of one Internet-based service provider may wish to access resources provided by a second Internet-based service provider. In the context of the Web, the service providers host websites (also called "sites," "web pages," or simply "pages") that present an easily accessible user interface between a user and the service provider. The current inter-page access model is to "jump" from one service provider's website to the next using graphically selected hyperlinks, by typing a destination site, or by other means. Each different provider typically requires a different login data set, so in order to switch from one provider to another, the customer must enter the login data associated with the next provider. This can be a cumbersome process, as the customer must memorize or record many different sets of login data.

Several methods are known for reducing the inconvenient process of logging in to multiple service providers. These systems allow the customer to operate within a "Single Sign On" (SSO) environment. The SSO provides "seamless" or "transparent" access between Internet resources wherein the customer only has to log in once to access all of the service providers with which he has an account. Once logged in, the customer may jump from website to website without having to re-enter login information.

The SSO's provided by the prior art use a traditional inter-page access model, in which a user of one page simply jumps from one website to the next without experiencing any inter-site interconnectivity. Although each website may have related or similar-looking pages, each separate website may have differences in appearance and functionality. Under the current inter-page access model, the content of one service provider's website is typically

uninfluenced by and unrelated to the content of previously visited service providers' websites. This is typically true even when the service providers have a business partnership. This type of inter-page access is "non-discriminatory" in that when a customer requests a second web page, neither the owner of the first web page nor the owner of the second web page

5   discriminates whether there is a relationship between the first and second web page owners.

A drawback with the current non-discriminatory inter-page access system is that it can have a negative impact on business partnerships. For example, a customer may have a credit card that is provided by a bank, but that is branded with the markings of a stock broker as part of a business relationship between the bank and the stock broker. In addition, the bank and

10   the stock broker may each have an Internet website. When the customer accesses the stock broker's website to make a stock transaction, he or she may wish to check his stock broker-branded credit card account. Using conventional inter-page access, when the customer accesses the bank's website the customer will see an entirely different web page, which may not appear to be affiliated with the stock broker at all. This lack of brand continuity can

15   weaken the customer's inclination to use the two service providers in unison, and may lead to customer confusion.

Conventional SSO systems do nothing to solve this problem. Although there is continuity of access between the websites, which is provided by the SSO system, there is a discontinuity between the service providers because the branded relationship between the two

20   service providers does not exist in the web context.

In addition to weakening the customer's brand association and loyalty, non-discriminatory inter-page access between service providers can also directly interfere with business partnerships by providing conflicting services to customers. A central service

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provider may have a partnership with many partner service providers that compete against one another in the same market. To continue with the above example, a single credit card issuer may offer various stock broker-branded credit cards pursuant to partnerships with several competing stock brokers. The credit card issuer may wish to advertise the availability of all

5   of these different stock broker-branded credit cards to potential customers on its website. When a customer accesses the credit card issuer's website by way of a link on his selected stock broker's website, he will see advertisements for the services of competing stock brokers. An individual stock broker would be opposed to presenting advertisements for its competitors' services to customers who have already become affiliated with that stock broker,

10   and this would create a disincentive to enter into a business partnership with the credit card provider. Although such advertising may be beneficial to the credit card provider, it would, in effect, facilitate competition between the various stock brokers, which may strain the business relationship between the partnered companies.

The problems presented by the traditional inter-page access model increase as the

15   complexity of the business partnerships increases. These problems also increase as users of various service providers employ SSO systems to obtain seamless access to various service providers. In the developing environment of the Internet, users may become less loyal to partnered groups of services because these partnerships are very hard to distinguish. Other problems with conventional inter-site access and SSO systems exist.

20   It would therefore be desirable to provide a system and method of providing discriminated system resources to users of multiple partners' systems, and to provide other improvements.

SUMMARY OF THE INVENTION

The present invention addresses these and other problems caused by traditional non-discriminatory access to multiple service providers and other systems and methods of Internet access. The present invention, in one regard, provides a method and system for providing discriminated system resources to a user during a single login session.

The system and method of the present invention help maintain continuity of appearance and message between visited websites, provide a secure connection between websites, and assist in fostering business partnerships.

In an embodiment of the present invention, a partner system receives a request to access system resources that are provided by the partner system from a host system, which is being used by a user who has logged in to the host system. In addition to this request, the partner system receives host system data and user data. Using the received data, the partner system identifies the host system and the user and determines whether access to the partner system resources is authorized. If access is authorized, then the partner system selects discriminated partner system resources that are associated with the particular host and the particular user and transmits those resources to the host system, the user, or both the host system and the user.

Various techniques for selecting discriminated partner system resources may be used with the present invention. In one embodiment, the partner system identifies the user's partner system account information, selects a predetermined web page that is associated with the host system, and integrates these into a discriminated host system resource. In another embodiment, the partner system modifies an existing web page to create a new discriminated web page which imitates the graphical appearance of the host system's web page and

incorporates information that does not conflict with the host's business into the discriminated host system resource.

In a second method, the host system receives user data, such as a user name and password, from a user and determines whether the user is authorized to use the host system.

5   If the user is authorized to use the host system, the host system provides the user with host system resources. The host system resources include an option to access partner system resources, which may be in the form of a hyperlink. When the user requests access to partner system resources, the host system transmits some or all of the user data to the partner system, along with host data that uniquely identifies the host.

10   The partner system then transmits the partner system resources to the host system. If the partner system resources are discriminated, then the host system forwards them to the user. If the partner system resources are not discriminated, then the host system discriminates the partner system resources according to the host's requirements before sending them to the user. Such discrimination may be in the form of adding, removing, or manipulating

15   information that is being provided by the partner system.

A system is also provided for carrying out the above methods. The system comprises instructions for carrying out the steps of the methods of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

The present invention may be better understood when described in conjunction with

20   the following exemplary figures:

Fig. 1 is a depiction of an embodiment of a networked communication system of the present invention;

Fig. 2 is a flowchart demonstrating the steps of one embodiment of a method of the present invention;

Fig. 3a is a schematic depiction of an embodiment of the invention in which the partner system transmits discriminated partner system resources directly to a user;

5   Fig. 3b is a schematic depiction of an embodiment of the invention in which the partner system transmits discriminated partner system resources to a host system, which then transmits discriminated partner system resources to a user; and

Fig. 4 is a flowchart demonstrating the steps of another embodiment of a method of the present invention.

10   **DETAILED DESCRIPTION OF THE EMBODIMENTS**

The present invention provides discriminated system resources to a user. In general, a user accesses a system provided by one of two or more partnered entities, then requests to access information or resources provided by another of the partnered entities. At this point, the partner through which the user makes this request becomes the host. These resources may

15   include any information transmitted over a communication network, such as financial information, advertising, special offers, news items, press releases, hyperlinks, or any other information or promotional material related to a user, host, partner or third party. In addition, the specific resources sought by the user may comprise only a portion of the total resources that will be made available to the user as a result of the request.

20   These resources supplied by the partners are discriminated. Discrimination is performed supplementing, modifying, filtering, or otherwise selectively retrieving resources to support and bolster the business relationship between the partners and provide other benefits to the partners, a user, third parties, or all of these entities. Different criteria for

discrimination may be used between each pair of partners. For example, one partner, when acting as a host, may discriminate against advertisements for goods or services competing with that partner's services, but allow other information to be provided in an unmodified form. Discrimination may also include modifying the partner system resources to comport

5   with the host system's requirements. For example, the partner system resources may be "branded," either by the partner or the host, so that they appear to be provided by the host system. This may be accomplished by using specific color schemes, text fonts, by incorporating specific graphical images or by other means.

The invention is generally described in terms of an Internet-based credit card provider

10   partnered with several other Internet-based service providers. However, it should be appreciated that this embodiment is exemplary only and that the invention is applicable in any situation where an Internet-based entity wishes to maintain continuity of appearances with a partnered Internet-based entity. "Partner" herein means any entity that provides goods or services by means of a communication network, and that is in a business relationship with

15   other partner entities. "User" herein means any entity that is a consumer or user of the goods or services provided by more than one partner. When a user accesses the services of a partner, that partner becomes the "host" for the ensuing login session relative to any partners accessed directly from that "host." Thus "host" and "partner" are relative terms, and a host in one situation may be a partner in another situation, depending on which partner the user

20   accesses first. A partner to one host may also be a host relative to any partners accessed through that partner's system. For clarity, a single partner system has been selected as an exemplary host, and another single partner has been selected as an exemplary partner, however this is not intended to limit the present invention. Herein, a "system" means any

means for accessing and communicating through a communication network, storing information, or maintaining system resources.

Also, for illustration purposes only, the invention is described in terms of the existing Internet. It should be appreciated, however, that the present invention could be implemented

5   through a variety of networks such as a telephone network, a satellite or cellular connection network, an electro-optical network, or any other communication network. The skilled artisan will also recognize that the invention could be implemented in variations of networks, such as the so-called Internet Protocol Next Generation (IPng) or any other variations of networked packet-switched or other technology.

10   The methods of this invention may be embodied into a system. Such a system may use suitable computer systems or combinations of computer hardware and computer software. As indicated herein, a system of the present invention may be practiced using a networked communication system. Fig. 1 depicts an embodiment of a system of the present invention that is operated over a networked communication system. A host system 110 is connected to

15   a multitude of user systems 112 and partner systems 114 through an intercommunication means 116, such as the Internet, a local area network ("LAN"), or a wide area network ("WAN"). The host system 110 and each of the partner systems 114 provides system resources to user systems 112 having access to the host and partner systems 112, 114 using the same intercommunication means 116. As noted herein, any of the partner systems 114

20   may act as the host system 110 depending on the sequence in which the systems are accessed by the user systems 112.

Those skilled in the art should appreciate that computer-operable programs defining the methods and functions described herein can be delivered to a computer in many forms;

including, but not limited to: (a) information permanently stored on non-writable storage media (e.g., read only memory devices within a computer or CD-ROM disks readable by a computer I/O attachment); (b) information alterably stored on writable storage media (e.g., floppy disks and hard drives); or (c) information conveyed to a computer through communication media such as telephone networks. It should be understood, therefore, that such media, when carrying such information, represent alternate embodiments of the present invention.

The system resources provided by the host system 110 and the partner systems 114 may be any information that is useful to the host, partner, or user. In one embodiment, these resources comprise information such as financial information regarding the users of the user systems 114. In another embodiment of the invention, these resources comprise non-financial information such as news, advertisements, and graphical information. In yet another embodiment, these resources comprise incentive reward information, such as frequent flyer mile account data. These resources may also be a combination of the above embodiments, and may include other information. Each partner system 114 and host system 110 may store these resources on its own system, or on other systems to which it has access.

In one embodiment, the host system 110 is an Internet website maintained by a partner that may be a provider of services or goods, such as a stock brokerage, and the partner systems 114 are websites maintained by business partners of the host who may be providers of related goods or services, such as a credit card provider that offers credit cards branded with the host's logo. Internet websites are generally known in the art, and a skilled artisan will be able to implement such websites in conjunction with the present invention.

Referring now to Fig. 2, an embodiment of a method for providing discriminated partner system resources to a user system 112 is described. The method illustrated in Fig. 2 depicts the embodiment as it is performed by a partner system 114. The method will generally comprise a user system 112 being operated by a user who has already logged in to a

5   host system 110, and now wishes to access partner system resources. The initial login is performed when the user logs in to the host system 110, and no additional logins should be required. The method begins when a partner system 114 receives a request to access partner system resources 202 from a host system 110. In one embodiment of the invention this happens when a user, who is logged in to the host system 110, selects a hyperlink on the

10   host's website that corresponds to the partner's website. This correlation may be apparent to the user or concealed. For example, an apparent correlation would exist if the website displayed a hyperlink stating "Check your [Name of partner system] account." In such a case, users would likely understand that they were about to receive resources from a different entity; specifically, the partner system 114. In an embodiment using a concealed correlation,

15   the web page may display a hyperlink simply stating "Check your credit." In this case, the user may or may not know that his credit information will be received from a separate entity.

Before providing partner system resources to the host system 110, the partner system 114 receives host system data 204. The partner system 114 uses the host system data to identify the host 206 so that the correct discriminated partner system resources may be

20   transmitted to the host system 110 of the user system 112.

The host system data may be also used for additional purposes. In one embodiment of the invention, the partner system 114 uses the host system data to determine whether the entity accessing the partner system 114 is an authorized host 208. This verification process

prevents unauthorized access, use, or manipulation of the partner system resources. In one

embodiment, the partner system 114 receives host system data 204 from the host system 110,

with which the partner system 114 can positively identify the host system 206. For example,

the host system 110 may send an identification code to the partner system 114, which the

5   partner system 114 compares to a database of host identifiers. As another example, the host

system 110 may access the partner system 114 through a portal designated specifically for use

by that host system 110, in which case the partner system 114 identifies all communications

through that portal as being from a particular business host. The partner system 114 may also

require independent verification of the host system's identity before proceeding. Such

10   verification systems are known in the art, and a skilled artisan will be able to implement a

verification system without undue experimentation. If the partner system 114 fails to identify

the host system 110 as an authorized host, then the partner system 114 will not transmit

partner system resources and may transmit an error message 210.

The partner system 114 also receives user data 208. The partner system 114 uses the

15   user data to identify the user 214 so that the partner system 114 can locate the particular

partner system resources associated with that user for transmittal. The partner system 114

may also require user authentication to ensure that the user is not an impostor. In order to

provide seamless access to the partner system resources, however, the user of the user system

112 should not have to provide any input during this authorization step. Seamless user

20   authorization may be accomplished by employing any number of existing Single Sign On

(SSO) systems. One such system is discussed in United States Patent Application

09/591,687, filed by Rosko et al., which is hereby incorporated by reference for all purposes

and in a manner consistent with the present invention. Another solution is provided by U.S.

Pat. No. 5,684,950 issued to Dare et al. Such solutions may provide a universal database of correlated user names and passwords to which all of the partners have access, or may have a trusted third party or authentication server verify the user's identity. Other SSO systems may provide for a universal session manager to control login operations. The present invention may employ these or any other means for seamless access provided by the art. Preferably, when the seamless access system will provide "secure" access to the various systems, that is, a level of security between websites, such that the risk of data theft, loss, or damage is substantially reduced compared to unsecured access systems. Regardless of the particular SSO employed to authenticate the user, the partner system 114 determines whether the user is an authentic user 216, and if the user is not properly authenticated, the partner system 114 will not provide partner system resources and it may transmit an error message 218.

After the host and user have been successfully identified and authorized, the partner system 114 determines whether discriminated resources exist 220. Existing discriminated resources may comprise, for example, a pre-established web page that is specifically designated for that particular host and bears that host's indicia and color schemes, as well as other information that may be approved by the host or consistent with the host's business. Existing discriminated resources may also comprise financial account data for a particular user. If discriminated resources exist, then the partner compiles the resources, such as by populating a host-specific web page with a user's financial information, and transmits the discriminated resources 222.

If discriminated resources do not exist, then in one embodiment, the partner system 114 may create discriminated resources 224. The partner system 114 may create discriminated resources in a number of ways. In one embodiment, the partner system 114

identifies graphical information regarding the host system's web page and recreates this information when transmitting the partner system resources, providing the appearance, to the user, that the discriminated resources originated from the host system 110. For example, the partner system 114 may analyze the color schemes, shapes, sizes, and brand labels of a host's

5   website, then incorporate these into the discriminated partner system resources. Such analysis may be facilitated by providing for a universal language or decoding key to be used by all of the partners. In another embodiment, the partner system 114 identifies and selects discriminated resources from a larger pool of resources according to a previously established agreement between the host and the partner. For example, the host and partner may agree that

10   certain classes of resources, such as particular types of advertisements, may be transmitted, but others may not. In one embodiment, the partner system 114 classifies each host system 110 according to that host's type of business, selects advertisements that do not compete with that host's type of business, and incorporates these advertisements into the discriminated partner system resources.

15   The partner system 114 transmits the discriminated partner system resources 222 to either the host system 110 or to the user system 112. Fig. 3a schematically depicts an embodiment of the invention in which the partner system 114 transmits the discriminated partner system resources directly to the user system 112. In the embodiment of Fig. 3a, the user system transmits user data 302 to the host system 110, and receives host resources 304

20   directly from the host system 110. When the user system 112 instructs the host system 110 to retrieve partner system resources from the partner system 114, the host system 110 transmits host data 306 and all or part of the user data 302 to the partner system 114. Upon approval of the host system 110 and the user and location or creation of discriminated partner system

resources, the partner system 114 transmits the discriminated partner system resources 308 to the user system 112 for viewing by the user.

In another embodiment, depicted schematically in Fig. 3b, the partner system 114 transmits the discriminated partner system resources 308 to the host system 110, which then transmits them to the user system 112 to be viewed by the user. In this embodiment, the host system 110 may perform further discriminating functions on the partner system resources by adding, modifying, or removing information.

The discriminated partner system resources may be displayed to the user in a number of ways. In one embodiment, in which the user accesses the host and partner systems 110, 114 through a computer terminal attached to the Internet, the discriminated partner system resources are displayed on a separate web browser "window" that is invoked when the user requests access to the partner system resources. In another embodiment, the discriminated partner system resources are displayed in a frame within the same web browser window that displays the host system resources. The host system resources and the discriminated partner system resources may be viewed simultaneously, or they may be viewed separately. In a preferred embodiment, the user may seamlessly move back and forth between views of the host system resources and the discriminated partner system resources.

Referring now to Fig. 4, another embodiment of a method for providing discriminated partner system resources to a user system 112 is provided. The method illustrated in Fig. 4 depicts the embodiment as it is performed by a host system 110. In this embodiment, the user transmits user data to the host system 402, which the host system 110 uses to determine whether the user is authentic 404. The user data may be manually entered by the user, retrieved from storage on a fixed storage medium, such as a computer hard drive, or stored on

a portable storage device, such as a magnetic card or other storage medium. The user data may also comprise biometric information inherent to the user, such as a retinal image. Any other suitable user data transmittal scheme may be used. The user may access the host system 110 from any networked terminal, such as a home computer or a public computer kiosk.

5   Authentication procedures have been described herein, and any suitable authentication process may be used. If the host system 110 determines that the user is not an authentic user, the host system 110 will not transmit host resources to the user and may transmit an error message to the user 406. If the host system 110 determines that the user is an authentic user, then it will transmit host system data to the user. Among this data will be an option to access

10   partner system resources 408. This option may or may not indicate to the user that, by selecting the option, the user will be provided with resources originating from somewhere other than the host system 110.

If the user requests partner system resources 410, the host system 110 attempts to retrieve partner system resources from the partner system 114. The host system 110 sends

15   host system data 412 and all or part of the user data 414 to the partner system 114. The user data and host system data transmitted to the partner server may comprise information necessary to identify the user and the host system 110, and may further comprise information necessary to authenticate the user and the host system 110. In one embodiment, the host system 110 provides the partner system 114 with information that has been received from a

20   third-party authentication server. Such authorization methods are known in the art, and any suitable method may be used with the present invention to provide the user with seamless access to host and partner system resources.

The host system 110 then receives partner system resources 416 from the partner system 114, and determines whether the partner system resources are discriminated in a manner acceptable to the host system 418. If the partner system resources are discriminated in a manner acceptable to the host system 110, then the host system 110 transmits the partner

5   system resources to the user system 420 to be viewed by a user. If the partner system resources are not suitably discriminated, the host system 110 may create discriminated resources by modifying the partner system resources 422, or adding to the partner system resources 424. For example, a host system 110 may modify the color scheme of a web page received from a partner system 114 to match the host's web page, and may also add extra

10   material such as advertisements or news items. The host system 110 may also selectively remove material from the partner system resources 426 to produce suitable discriminated resources. For example, the host system 110 may remove an advertisement for a competing service that was received as part of the non-discriminated partner system resources.

After the host system 110 has created or modified the resources to be suitably

15   discriminated, the resources are transmitted to the user 420. A schematic diagram depicting the flow of data and resources in this embodiment is depicted in Fig. 3b, which is described elsewhere herein.

Although the present invention has been described in terms of certain preferred embodiments, it is not limited to these embodiments. Alternative embodiments and

20   modifications which would still be encompassed by the invention may be made by those skilled in the art, particularly in light of the foregoing teachings. Therefore, the following claims are intended to cover any alternative embodiments, modifications or equivalents which may be within the spirit and scope of the invention as defined by the claims.